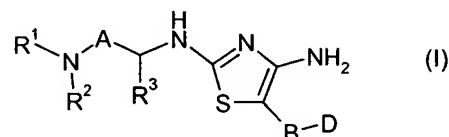


## CLAIMS

1. A compound of formula (I):



5

wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

10 (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- 15
- hydrogen,
  - oxo,
  - C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

20

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
25 -S(=O)<sub>2</sub>NH<sub>2</sub>,

25

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
30 further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>, -OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>, -S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>, -OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>, -C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

5

- hydrogen,

- oxo,

10

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,

-OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,

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-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>, -S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

25

30

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>,

$-\text{C}(=\text{O})\text{R}^{17}$ ,  $-\text{NHC}(=\text{O})\text{R}^{17}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{17}$ ,  $-\text{S}(=\text{O})\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5 wherein  $\text{R}^{17}$  and  $\text{R}^{18}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{17}$  and  $\text{R}^{18}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or  $\text{R}^1$  and  $\text{R}^2$  which may be the same or different independently are selected from  
10 hydrogen,  $-\text{C}(=\text{O})\text{OR}^{19}$   $-\text{C}(=\text{O})\text{R}^{19}$  and  $\text{C}_{1-6}$ -alkyl,

wherein  $\text{R}^{19}$  is  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl or  $\text{C}_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

15 • hydroxy, halogen, cyano, nitro,  $-\text{NR}^{20}\text{R}^{21}$ ,  $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{20}$ ,  $-\text{C}(=\text{O})\text{R}^{20}$ ,  $-\text{NHC}(=\text{O})\text{R}^{20}$ ,  $-\text{CHF}_2$ ,  
 $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{20}$ ,  $-\text{S}(=\text{O})\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{R}^{20}$ ,  
 $-\text{S}(=\text{O})_2\text{NH}_2$ ,

20 • wherein  $\text{R}^{20}$  and  $\text{R}^{21}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{20}$  and  $\text{R}^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 and  $\text{R}^3$  is hydrogen,

B is a valence bond,  $-\text{C}(=\text{O})-$ ,  $-\text{S}(=\text{O})-$  or  $-\text{S}(=\text{O})_2-$ ,

D is

30

• hydroxy, halogen, cyano, nitro,  $-\text{NR}^{22}\text{R}^{23}$ ,  $-\text{N}(\text{R}^{22})\text{OR}^{23}$ ,  $-\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  
 $-\text{OC}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{22}$ ,  $-\text{C}(=\text{O})\text{R}^{22}$ ,  
 $-\text{NHC}(=\text{O})\text{R}^{22}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{22}$ ,  
35  $-\text{S}(=\text{O})\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  
10  $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,  
 $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{24}$ ,  $-S(=O)R^{24}$ ,  $-S(=O)_2R^{24}$ ,  
 $-S(=O)_2NH_2$ ,

wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected  
15 from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl-  
20  $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  
 $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  
 $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  
 $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  
25  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,  $-NH$ -aryl,  $-NH$ -heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro,  $-NR^{26}R^{27}$ ,  $-C(=O)NR^{26}R^{27}$ ,  $-OC(=O)NR^{26}R^{27}$ ,  
30  $-OCH_2C(=O)NR^{26}R^{27}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{26}$ ,  $-C(=O)R^{26}$ ,  $-NHC(=O)R^{26}$ ,  
 $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{26}$ ,  
 $-S(=O)R^{26}$ ,  $-S(=O)_2R^{26}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{26}$  and  $R^{27}$  which may be the same or different independently are  
35 selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{26}$  and  $R^{27}$ , together with the

nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 5                   ○ C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,  
10                   -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>,  
-S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the  
15                   nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 20                   ○ aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cyclo-alkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

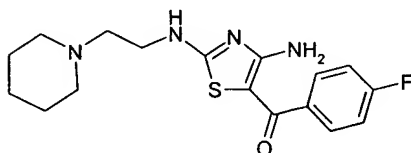
25                   wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>,  
30                   -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the  
35                   nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

with the proviso that the compound must not be

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as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

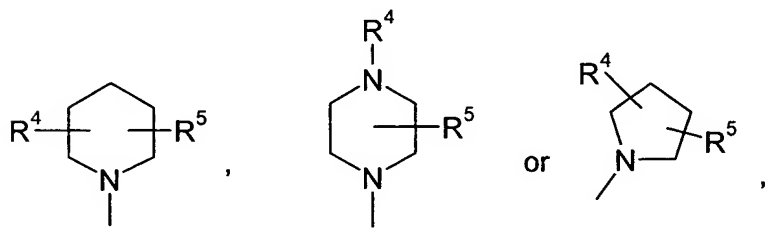
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2. A compound according to claim 1 wherein R<sup>2</sup> and R<sup>3</sup> are both hydrogen, and R<sup>1</sup> is -C(=O)OR<sup>19</sup>.

3. A compound according to claim 2 wherein R<sup>19</sup> is C<sub>1-6</sub>-alkyl.

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4. A compound according to claim 1 wherein R<sup>3</sup> is hydrogen, and R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a ring



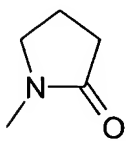
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5. A compound according to claim 4 wherein R<sup>4</sup> and R<sup>5</sup> are independently selected from hydrogen, C<sub>1-6</sub>-alkyl, phenyl-C<sub>1-6</sub>-alkyl and oxo.

6. A compound according to claim 5 wherein R<sup>4</sup> is hydrogen or C<sub>1-6</sub>-alkyl, and R<sup>5</sup> is hydrogen or oxo.

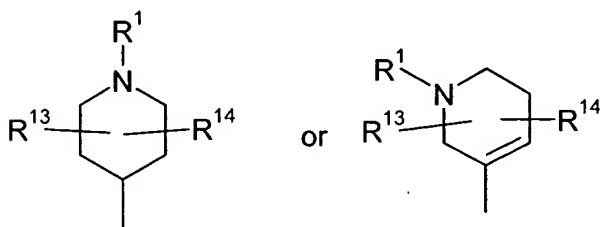
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7. A compound according to claim 4 wherein R<sup>3</sup> is hydrogen, and R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a ring



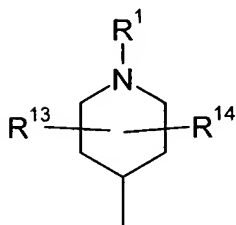
8. A compound according to claim 1 wherein  $R^2$  and  $R^3$ , together with A and the nitrogen atom and the carbon atom, respectively, to which they are attached, form a ring

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9. A compound according to claim 8 wherein  $R^2$  and  $R^3$ , together with A and the nitrogen atom and the carbon atom, respectively, to which they are attached, form a ring

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10. A compound according to claim 8 or 9 wherein  $R^1$  is hydrogen,  $C_{1-6}$ -alkyl, phenyl- $C_{1-6}$ -alkyl or  $-C(=O)OR^{10}$ , wherein  $R^{10}$  is as defined in claim 1, and  $R^{13}$  and  $R^{14}$  are independently hydrogen,  $C_{1-6}$ -alkyl, phenyl- $C_{1-6}$ -alkyl or oxo.

15

11. A compound according to claim 10 wherein  $R^1$  is hydrogen or  $-C(=O)O-C_{1-6}$ -alkyl, and  $R^{13}$  and  $R^{14}$  are hydrogen.

20 12. A compound according to claim 1 wherein  $R^1$ ,  $R^2$  and  $R^3$  are hydrogen.

13. A compound according to claim 1 wherein A is  $C_{1-6}$ -alkylene.

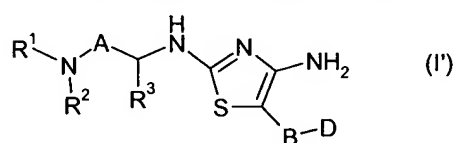


14. A compound according to claim 13 wherein A is methylene or ethylene.
15. A compound according to claim 14 wherein A is ethylene.
- 5 16. A compound according to claim 1 wherein B is -C(=O)-.
17. A compound according to claim 1 wherein D is C<sub>3-8</sub>-cycloalkyl, heteroaryl or aryl, which may optionally be substituted.
- 10 18. A compound according to claim 1 wherein D is C<sub>3-8</sub>-cycloalkyl, heteroaryl or aryl, which may optionally be substituted, but not in the positions adjacent to the point of attachment of D to B.
- 15 19. A compound according to claim 17 or 18 wherein D is cyclopropyl, thienyl or phenyl, which may optionally be substituted.
20. A compound according to claim 17 wherein D is cyclopropyl.
21. A compound according to claim 17 or 18 wherein D is thienyl, which is substituted with
- 20 halogen.
22. A compound according to claim 17 or 18 wherein D is phenyl, which is optionally substituted with
- 25
- hydroxy, halogen,
  - heteroaryl-C<sub>1-6</sub>-alkoxy, aryl-C<sub>1-6</sub>-alkoxy, wherein the ring moieties are optionally substituted.
- 30 23. A compound according to claim 22 wherein D is phenyl which is optionally substituted with halogen or benzyloxy, wherein the ring moiety of benzyloxy is optionally substituted.
24. A compound according to claim 23 wherein D is phenyl, which is substituted with benzyl-oxy.

25. A pharmaceutical composition comprising at least one compound according to claim 1 together with one or more pharmaceutically acceptable carriers or excipients.

5 26. A pharmaceutical composition according to claim 25 in unit dosage form, comprising from about 0.05 mg to about 1000 mg of the compound according to claim 1.

27. A method for treating diseases, disorders, syndromes and conditions wherein an inhibition of glycogen synthase kinase-3 (GSK-3) is beneficial, said method comprising  
10 administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

15 A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7  
membered non-aromatic ring, which ring may optionally contain a double bond, and which  
ring may optionally contain a further nitrogen atom, and to which ring is attached two groups  
20 R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,
- oxo,
- 25 • C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently  
selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>,  
30 -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>,  
-OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 10 • aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

15 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>, -OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>, -S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

20 wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

30 wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>, -OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,

$-\text{C}(=\text{O})\text{R}^{11}$ ,  $-\text{NHC}(=\text{O})\text{R}^{11}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{11}$ ,  $-\text{S}(=\text{O})\text{R}^{11}$ ,  $-\text{S}(=\text{O})_2\text{R}^{11}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5 wherein  $\text{R}^{11}$  and  $\text{R}^{12}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{11}$  and  $\text{R}^{12}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 and  $\text{R}^2$  and  $\text{R}^3$  are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups  $\text{R}^{13}$  and  $\text{R}^{14}$  which are independently selected from

- hydrogen,
- 15 • oxo,
- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,

20 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{15}\text{R}^{16}$ ,  $-\text{C}(=\text{O})\text{NR}^{15}\text{R}^{16}$ ,  $-\text{OC}(=\text{O})\text{NR}^{15}\text{R}^{16}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{15}\text{R}^{16}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{15}$ ,  $-\text{C}(=\text{O})\text{R}^{15}$ ,  $-\text{NHC}(=\text{O})\text{R}^{15}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{15}$ ,  $-\text{S}(=\text{O})\text{R}^{15}$ ,  $-\text{S}(=\text{O})_2\text{R}^{15}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

25 wherein  $\text{R}^{15}$  and  $\text{R}^{16}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{15}$  and  $\text{R}^{16}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 30 • aryl,  $\text{C}_{3-8}$ -cycloalkyl, heteroaryl,  $\text{C}_{3-8}$ -heterocyclyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl, aryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkoxy, heteroaryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})$ -aryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{C}(=\text{O})$ -heteroaryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{O}$ -aryl,  $-\text{O}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{O}$ -heteroaryl,  $-\text{O}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{S}$ -aryl,  $-\text{S}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{S}$ -heteroaryl,  $-\text{S}$ - $\text{C}_{3-8}$ -heterocyclyl,
- 35

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

5 hydroxy, halogen, cyano, nitro,  $-\text{NR}^{17}\text{R}^{18}$ ,  $-\text{C}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  $-\text{OC}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{17}$ ,  
 $-\text{C}(=\text{O})\text{R}^{17}$ ,  $-\text{NHC}(=\text{O})\text{R}^{17}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{17}$ ,  $-\text{S}(=\text{O})\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

10 wherein  $\text{R}^{17}$  and  $\text{R}^{18}$  which may be the same or different independently are selected  
from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{17}$  and  $\text{R}^{18}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

15 (iii) or  $\text{R}^1$  and  $\text{R}^2$  which may be the same or different independently are selected from  
hydrogen,  $-\text{C}(=\text{O})\text{OR}^{19}$ ,  $-\text{C}(=\text{O})\text{R}^{19}$  and  $\text{C}_{1-6}$ -alkyl,

wherein  $\text{R}^{19}$  is  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl or  $\text{C}_{2-6}$ -alkynyl, which may optionally be substituted with  
one or two substituents independently selected from

20 • hydroxy, halogen, cyano, nitro,  $-\text{NR}^{20}\text{R}^{21}$ ,  $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{20}$ ,  $-\text{C}(=\text{O})\text{R}^{20}$ ,  $-\text{NHC}(=\text{O})\text{R}^{20}$ ,  $-\text{CHF}_2$ ,  
 $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{20}$ ,  $-\text{S}(=\text{O})\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{R}^{20}$ ,  
 $-\text{S}(=\text{O})_2\text{NH}_2$ ,

25 • wherein  $\text{R}^{20}$  and  $\text{R}^{21}$  which may be the same or different independently are selected  
from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{20}$  and  $\text{R}^{21}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and  $\text{R}^3$  is hydrogen,

B is a valence bond,  $-\text{C}(=\text{O})-$ ,  $-\text{S}(=\text{O})-$  or  $-\text{S}(=\text{O})_2-$ ,

35 D is

- 5
- hydroxy, halogen, cyano, nitro,  $-\text{NR}^{22}\text{R}^{23}$ ,  $-\text{N}(\text{R}^{22})\text{OR}^{23}$ ,  $-\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  
 $-\text{OC}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{22}$ ,  $-\text{C}(=\text{O})\text{R}^{22}$ ,  
 $-\text{NHC}(=\text{O})\text{R}^{22}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{22}$ ,  
 $-\text{S}(=\text{O})\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

10 wherein  $\text{R}^{22}$  and  $\text{R}^{23}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{22}$  and  $\text{R}^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,

15 which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{24}\text{R}^{25}$ ,  $-\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $-\text{OC}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{24}$ ,  $-\text{C}(=\text{O})\text{R}^{24}$ ,  $-\text{NHC}(=\text{O})\text{R}^{24}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{24}$ ,  $-\text{S}(=\text{O})\text{R}^{24}$ ,  $-\text{S}(=\text{O})_2\text{R}^{24}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

20 wherein  $\text{R}^{24}$  and  $\text{R}^{25}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{24}$  and  $\text{R}^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 25
- aryl,  $\text{C}_{3-8}$ -cycloalkyl, heteroaryl,  $\text{C}_{3-8}$ -heterocyclyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl, aryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkoxy, heteroaryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})$ -aryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{C}(=\text{O})$ -heteroaryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{O}$ -aryl,  $-\text{O}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{O}$ -heteroaryl,  $-\text{O}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{S}$ -aryl,  $-\text{S}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{S}$ -heteroaryl,  $-\text{S}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{NH}$ -aryl,  $-\text{NH}$ -heteroaryl,

30

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro,  $-\text{NR}^{26}\text{R}^{27}$ ,  $-\text{C}(=\text{O})\text{NR}^{26}\text{R}^{27}$ ,  $-\text{OC}(=\text{O})\text{NR}^{26}\text{R}^{27}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{26}\text{R}^{27}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{26}$ ,  $-\text{C}(=\text{O})\text{R}^{26}$ ,  $-\text{NHC}(=\text{O})\text{R}^{26}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{26}$ ,  $-\text{S}(=\text{O})\text{R}^{26}$ ,  $-\text{S}(=\text{O})_2\text{R}^{26}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5

wherein  $\text{R}^{26}$  and  $\text{R}^{27}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{26}$  and  $\text{R}^{27}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{28}\text{R}^{29}$ ,  $-\text{C}(=\text{O})\text{NR}^{28}\text{R}^{29}$ ,  $-\text{OC}(=\text{O})\text{NR}^{28}\text{R}^{29}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{28}\text{R}^{29}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{28}$ ,  $-\text{C}(=\text{O})\text{R}^{28}$ ,  $-\text{NHC}(=\text{O})\text{R}^{28}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{28}$ ,  $-\text{S}(=\text{O})\text{R}^{28}$ ,  $-\text{S}(=\text{O})_2\text{R}^{28}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

15

wherein  $\text{R}^{28}$  and  $\text{R}^{29}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{28}$  and  $\text{R}^{29}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

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- aryl,  $\text{C}_{3-8}$ -cycloalkyl, heteroaryl,  $\text{C}_{3-8}$ -heterocyclyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl, aryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkoxy, heteroaryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})$ -aryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{C}(=\text{O})$ -heteroaryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{O}$ -aryl,  $-\text{O}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{O}$ -heteroaryl,  $-\text{O}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{S}$ -aryl,  $-\text{S}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{S}$ -heteroaryl,  $-\text{S}$ - $\text{C}_{3-8}$ -heterocyclyl,

30

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{30}\text{R}^{31}$ ,  $-\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $-\text{OC}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $\text{C}_{1-6}$ -alkyl,

35

C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>,  
-S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are  
selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the  
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring  
optionally containing one or two further heteroatoms selected from oxygen,  
sulphur and nitrogen,

10

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of  
these or a pharmaceutically acceptable salt thereof.

15

28. The method according to claim 27, wherein the effective amount of the compound is in  
the range of from about 0.05 mg to about 2000 mg per day.

29. A pharmaceutical composition according to claim 25 in unit dosage form; comprising from  
about 0.1 mg to about 500 mg of the compound according to claim 1.

20

30. A pharmaceutical composition according to claim 25 in unit dosage form, comprising from  
about 0.5 mg to about 200 mg of the compound according to claim 1.

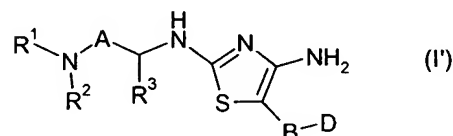
31. The method according to claim 27, wherein the effective amount of the compound is in  
the range of from about 0.1 mg to about 1000 mg per day.

25

32. The method according to claim 27, wherein the effective amount of the compound is in  
the range of from about 0.5 mg to about 500 mg per day.

30

33. A method for treating diseases, disorders, syndromes and conditions related to glycogen  
synthase kinase-3 (GSK-3), said method comprising administering to a subject in need  
thereof an effective amount of a compound of formula (I'):





wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

- 5 (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- 10 • hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

15

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
20 -S(=O)<sub>2</sub>NH<sub>2</sub>,

20

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
25 further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
30 -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

30

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>,

35

-OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>,  
-S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5        wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

10    and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

15    wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with  
one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
20    -C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which  
25    they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon  
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to  
30    which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- oxo,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently

selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,

5 -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected

10 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
15 C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cyclo-  
alkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
-C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl,  
-O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl,  
-S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

20 wherein the ring moieties may optionally be substituted with one to three substituents  
independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>,

25 -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>,  
-C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected

30 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R<sup>1</sup> and R<sup>2</sup> which may be the same or different independently are selected from

35 hydrogen, -C(=O)OR<sup>19</sup>, -C(=O)R<sup>19</sup> and C<sub>1-6</sub>-alkyl,

wherein  $R^{19}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

- 5
- hydroxy, halogen, cyano, nitro,  $-NR^{20}R^{21}$ ,  $-C(=O)NR^{20}R^{21}$ ,  $-OC(=O)NR^{20}R^{21}$ ,  $-OCH_2C(=O)NR^{20}R^{21}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{20}$ ,  $-C(=O)R^{20}$ ,  $-NHC(=O)R^{20}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{20}$ ,  $-S(=O)R^{20}$ ,  $-S(=O)_2R^{20}$ ,  $-S(=O)_2NH_2$ ,
- 10
- wherein  $R^{20}$  and  $R^{21}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{20}$  and  $R^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,
- 15
- and  $R^3$  is hydrogen,

B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

D is

20

- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

25

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from

- 35
- hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,

-CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>24</sup>, -S(=O)R<sup>24</sup>, -S(=O)<sub>2</sub>R<sup>24</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>24</sup> and R<sup>25</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>24</sup> and R<sup>25</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 10 • aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

15

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- 20 ○ hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>, -OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>, -S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

25 wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 30 ○ C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,

-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>,  
-S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10       ○ aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

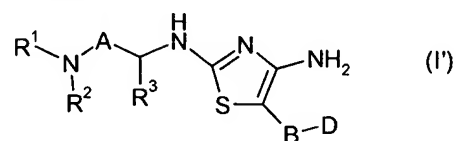
15 wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, 20 C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

25 wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

34. A method for treating diseases, disorders, syndromes and conditions wherein growth factor induced inhibition of glycogen synthase kinase-3 (GSK-3) is insufficient, said method

comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



5 wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

10 (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- 15 • hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

20 which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

25 wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 30 • aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cyclo-

alkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
-C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl,  
-O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl,  
-S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

5

wherein the ring moieties may optionally be substituted with one to three substituents  
independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>,  
-OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>,  
-S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

10

wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

15

and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

20

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with  
one or two substituents independently selected from

25

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
-C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

30

wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,



and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- 5
- hydrogen,
  - oxo,
  - C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

10

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>, -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>, -NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>, -S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

15

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

25

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

30

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>, -C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

35

wherein  $R^{17}$  and  $R^{18}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{17}$  and  $R^{18}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or  $R^1$  and  $R^2$  which may be the same or different independently are selected from hydrogen,  $-C(=O)OR^{19}$   $-C(=O)R^{19}$  and  $C_{1-6}$ -alkyl,

wherein  $R^{19}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro,  $-NR^{20}R^{21}$ ,  $-C(=O)NR^{20}R^{21}$ ,  $-OC(=O)NR^{20}R^{21}$ ,  $-OCH_2C(=O)NR^{20}R^{21}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{20}$ ,  $-C(=O)R^{20}$ ,  $-NHC(=O)R^{20}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{20}$ ,  $-S(=O)R^{20}$ ,  $-S(=O)_2R^{20}$ ,  $-S(=O)_2NH_2$ ,
- wherein  $R^{20}$  and  $R^{21}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{20}$  and  $R^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and  $R^3$  is hydrogen,

B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

D is

- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

5

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>24</sup>R<sup>25</sup>, -C(=O)NR<sup>24</sup>R<sup>25</sup>, -OC(=O)NR<sup>24</sup>R<sup>25</sup>, -OCH<sub>2</sub>C(=O)NR<sup>24</sup>R<sup>25</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>24</sup>, -C(=O)R<sup>24</sup>, -NHC(=O)R<sup>24</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>24</sup>, -S(=O)R<sup>24</sup>, -S(=O)<sub>2</sub>R<sup>24</sup>,  
10 -S(=O)<sub>2</sub>NH<sub>2</sub>,

10

wherein R<sup>24</sup> and R<sup>25</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>24</sup> and R<sup>25</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
15 further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy,  
20 -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

20

wherein the ring moieties may optionally be substituted with one to three substituents  
25 selected from

25

- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>, -OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>,  
30 -S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

30

wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

5

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>, -S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

10

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

20

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

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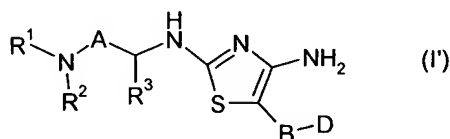
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wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

35. A method for treating diseases, disorders, syndromes and conditions wherein glycogen metabolism exhibits abnormalities, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein  $R^6$  and  $R^7$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^6$  and  $R^7$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,

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wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^8R^9$ ,  $-C(=O)NR^8R^9$ ,  $-OC(=O)NR^8R^9$ ,  $-OCH_2C(=O)NR^8R^9$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^8$ ,  $-C(=O)R^8$ ,  $-NHC(=O)R^8$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^8$ ,  $-S(=O)R^8$ ,  $-S(=O)_2R^8$ ,  $-S(=O)_2NH_2$ ,

15

wherein  $R^8$  and  $R^9$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^8$  and  $R^9$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

and  $R^3$  is hydrogen,

25

(ii) or  $R^1$  is hydrogen,  $-C(=O)OR^{10}$ ,  $-C(=O)R^{10}$ ,  $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl or  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl,

wherein  $R^{10}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

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hydroxy, halogen, cyano, nitro,  $-NR^{11}R^{12}$ ,  $-C(=O)NR^{11}R^{12}$ ,  $-OC(=O)NR^{11}R^{12}$ ,  $-OCH_2C(=O)NR^{11}R^{12}$ ,  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{11}$ ,  $-C(=O)R^{11}$ ,  $-NHC(=O)R^{11}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{11}$ ,  $-S(=O)R^{11}$ ,  $-S(=O)_2R^{11}$ ,  $-S(=O)_2NH_2$ ,

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wherein  $R^{11}$  and  $R^{12}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{11}$  and  $R^{12}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and  $R^2$  and  $R^3$  are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups  $R^{13}$  and  $R^{14}$  which are independently selected from

- hydrogen,
- oxo,
- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^{15}R^{16}$ ,  $-C(=O)NR^{15}R^{16}$ ,  $-OC(=O)NR^{15}R^{16}$ ,  $-OCH_2C(=O)NR^{15}R^{16}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{15}$ ,  $-C(=O)R^{15}$ ,  $-NHC(=O)R^{15}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{15}$ ,  $-S(=O)R^{15}$ ,  $-S(=O)_2R^{15}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{15}$  and  $R^{16}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{15}$  and  $R^{16}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

5 hydroxy, halogen, cyano, nitro,  $-\text{NR}^{17}\text{R}^{18}$ ,  $-\text{C}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  $-\text{OC}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{17}$ ,  
 $-\text{C}(=\text{O})\text{R}^{17}$ ,  $-\text{NHC}(=\text{O})\text{R}^{17}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{17}$ ,  $-\text{S}(=\text{O})\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

10 wherein  $\text{R}^{17}$  and  $\text{R}^{18}$  which may be the same or different independently are selected  
from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{17}$  and  $\text{R}^{18}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or  $\text{R}^1$  and  $\text{R}^2$  which may be the same or different independently are selected from  
15 hydrogen,  $-\text{C}(=\text{O})\text{OR}^{19}$ ,  $-\text{C}(=\text{O})\text{R}^{19}$  and  $\text{C}_{1-6}$ -alkyl,

wherein  $\text{R}^{19}$  is  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl or  $\text{C}_{2-6}$ -alkynyl, which may optionally be substituted with  
one or two substituents independently selected from

20 • hydroxy, halogen, cyano, nitro,  $-\text{NR}^{20}\text{R}^{21}$ ,  $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{20}$ ,  $-\text{C}(=\text{O})\text{R}^{20}$ ,  $-\text{NHC}(=\text{O})\text{R}^{20}$ ,  $-\text{CHF}_2$ ,  
 $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{20}$ ,  $-\text{S}(=\text{O})\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{R}^{20}$ ,  
 $-\text{S}(=\text{O})_2\text{NH}_2$ ,

25 • wherein  $\text{R}^{20}$  and  $\text{R}^{21}$  which may be the same or different independently are selected  
from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{20}$  and  $\text{R}^{21}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and  $\text{R}^3$  is hydrogen,

B is a valence bond,  $-\text{C}(=\text{O})-$ ,  $-\text{S}(=\text{O})-$  or  $-\text{S}(=\text{O})_2-$ ,

D is



- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  
 $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  
 $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  
 $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

5

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from

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hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  
 $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,  
 $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{24}$ ,  $-S(=O)R^{24}$ ,  $-S(=O)_2R^{24}$ ,  
 $-S(=O)_2NH_2$ ,

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wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl-  
 $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  
 $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  
 $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  
 $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  
 $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,  $-NH$ -aryl,  $-NH$ -heteroaryl,

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wherein the ring moieties may optionally be substituted with one to three substituents selected from

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- hydroxy, halogen, cyano, nitro,  $-NR^{26}R^{27}$ ,  $-C(=O)NR^{26}R^{27}$ ,  $-OC(=O)NR^{26}R^{27}$ ,  
 $-OCH_2C(=O)NR^{26}R^{27}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{26}$ ,  $-C(=O)R^{26}$ ,  $-NHC(=O)R^{26}$ ,

-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>,  
-S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 o C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>,  
15 -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>,  
-S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

20 wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 o aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

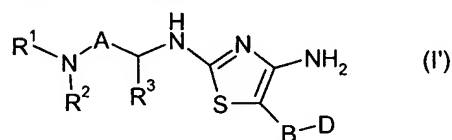
30 wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>,

-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>,  
-S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

36. A method for treating diseases, disorders, syndromes and conditions wherein glycogen  
synthase is insufficiently activated, said method comprising administering to a subject in  
15 need thereof an effective amount of a compound of formula (I'):



wherein

20 A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7  
membered non-aromatic ring, which ring may optionally contain a double bond, and which  
ring may optionally contain a further nitrogen atom, and to which ring is attached two groups  
25 R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,
  - oxo,
  - C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,
- 30

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^6R^7$ ,  $-C(=O)NR^6R^7$ ,  $-OC(=O)NR^6R^7$ ,  $-OCH_2C(=O)NR^6R^7$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^6$ ,  $-C(=O)R^6$ ,  $-NHC(=O)R^6$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^6$ ,  $-S(=O)R^6$ ,  $-S(=O)_2R^6$ ,  
5  $-S(=O)_2NH_2$ ,

wherein  $R^6$  and  $R^7$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^6$  and  $R^7$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
10 further heteroatoms selected from oxygen, sulphur and nitrogen,

• aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  
15  $-C(=O)-C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)-C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O-C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O-C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  $-S-C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S-C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^8R^9$ ,  $-C(=O)NR^8R^9$ ,  $-OC(=O)NR^8R^9$ ,  $-OCH_2C(=O)NR^8R^9$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^8$ ,  $-C(=O)R^8$ ,  $-NHC(=O)R^8$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^8$ ,  $-S(=O)R^8$ ,  
20  $-S(=O)_2R^8$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^8$  and  $R^9$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^8$  and  $R^9$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
25 further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and  $R^3$  is hydrogen,

(ii) or  $R^1$  is hydrogen,  $-C(=O)OR^{10}$ ,  $-C(=O)R^{10}$ ,  $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl or  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl,

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

5 hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
-C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

10 wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon  
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to  
which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- 20 • oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

25 which may optionally be substituted with one or two substituents independently  
selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,  
-OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

30 wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>, -C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R<sup>1</sup> and R<sup>2</sup> which may be the same or different independently are selected from hydrogen, -C(=O)OR<sup>19</sup>, -C(=O)R<sup>19</sup> and C<sub>1-6</sub>-alkyl,

wherein R<sup>19</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>20</sup>R<sup>21</sup>, -C(=O)NR<sup>20</sup>R<sup>21</sup>, -OC(=O)NR<sup>20</sup>R<sup>21</sup>, -OCH<sub>2</sub>C(=O)NR<sup>20</sup>R<sup>21</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>20</sup>, -C(=O)R<sup>20</sup>, -NHC(=O)R<sup>20</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>20</sup>, -S(=O)R<sup>20</sup>, -S(=O)<sub>2</sub>R<sup>20</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,
- wherein R<sup>20</sup> and R<sup>21</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>20</sup> and R<sup>21</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and  $R^3$  is hydrogen,

B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

5

D is

- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  
10  $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  
 $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  
 $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected  
from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which  
15 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

20 which may optionally be substituted with one or two substituents selected from  
hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  
 $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,  
 $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{24}$ ,  $-S(=O)R^{24}$ ,  $-S(=O)_2R^{24}$ ,  
 $-S(=O)_2NH_2$ ,

25

wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected  
from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl-  
 $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  
 $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  
 $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,

-O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl,  
-S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents  
selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>,  
-S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are  
selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the  
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring  
optionally containing one or two further heteroatoms selected from oxygen,  
sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from  
hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>,  
-S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are  
selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the  
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring  
optionally containing one or two further heteroatoms selected from oxygen,  
sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cyclo-  
alkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-  
C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-hetero-  
cyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl,



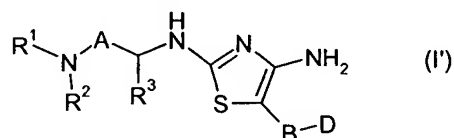
-C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

37. A method for treating diseases, disorders, syndromes and conditions involving elevated blood glucose, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



- wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

- (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,
- oxo,
- 5 • C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>,  
10 -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which  
15 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

25 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>, -OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>, -S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

30 wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

5

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

10 hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
-C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

15 wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon  
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to  
which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- 25 • oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

30 which may optionally be substituted with one or two substituents independently  
selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,  
-OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein  $R^{15}$  and  $R^{16}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{15}$  and  $R^{16}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy, -C(=O)-aryl, -C(=O)- $C_{3-8}$ -cycloalkyl, -C(=O)-heteroaryl, -C(=O)- $C_{3-8}$ -heterocyclyl, -O-aryl, -O- $C_{3-8}$ -cycloalkyl, -O-heteroaryl, -O- $C_{3-8}$ -heterocyclyl, -S-aryl, -S- $C_{3-8}$ -cycloalkyl, -S-heteroaryl, -S- $C_{3-8}$ -heterocyclyl,

10

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

15

hydroxy, halogen, cyano, nitro, - $NR^{17}R^{18}$ , -C(=O) $NR^{17}R^{18}$ , -OC(=O) $NR^{17}R^{18}$ , -OCH<sub>2</sub>C(=O) $NR^{17}R^{18}$ ,  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,  $C_{1-6}$ -alkoxy, -C(=O)OR<sup>17</sup>, -C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

20

wherein  $R^{17}$  and  $R^{18}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{17}$  and  $R^{18}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

(iii) or  $R^1$  and  $R^2$  which may be the same or different independently are selected from hydrogen, -C(=O)OR<sup>19</sup> -C(=O)R<sup>19</sup> and  $C_{1-6}$ -alkyl,

30

wherein  $R^{19}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

35

- hydroxy, halogen, cyano, nitro, - $NR^{20}R^{21}$ , -C(=O) $NR^{20}R^{21}$ , -OC(=O) $NR^{20}R^{21}$ , -OCH<sub>2</sub>C(=O) $NR^{20}R^{21}$ ,  $C_{1-6}$ -alkoxy, -C(=O)OR<sup>20</sup>, -C(=O)R<sup>20</sup>, -NHC(=O)R<sup>20</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>20</sup>, -S(=O)R<sup>20</sup>, -S(=O)<sub>2</sub>R<sup>20</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

- 5
- wherein  $R^{20}$  and  $R^{21}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{20}$  and  $R^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and  $R^3$  is hydrogen,

10 B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

D is

- 15
- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

20 wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

25 which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{24}$ ,  $-S(=O)R^{24}$ ,  $-S(=O)_2R^{24}$ ,  $-S(=O)_2NH_2$ ,

30 wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>, -OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>, -S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>, -S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

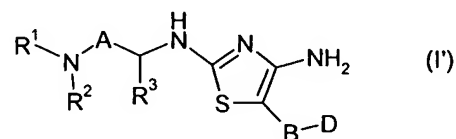
- o aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

38. A method for treating hyperglycemia, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which

ring may optionally contain a further nitrogen atom, and to which ring is attached two groups  $R^4$  and  $R^5$  which are independently selected from

- hydrogen,
- oxo,
- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^6R^7$ ,  $-C(=O)NR^6R^7$ ,  $-OC(=O)NR^6R^7$ ,  $-OCH_2C(=O)NR^6R^7$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^6$ ,  $-C(=O)R^6$ ,  $-NHC(=O)R^6$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^6$ ,  $-S(=O)R^6$ ,  $-S(=O)_2R^6$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^6$  and  $R^7$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^6$  and  $R^7$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^8R^9$ ,  $-C(=O)NR^8R^9$ ,  $-OC(=O)NR^8R^9$ ,  $-OCH_2C(=O)NR^8R^9$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^8$ ,  $-C(=O)R^8$ ,  $-NHC(=O)R^8$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^8$ ,  $-S(=O)R^8$ ,  $-S(=O)_2R^8$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^8$  and  $R^9$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^8$  and  $R^9$ , together with the nitrogen atom to which



they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>3</sup> is hydrogen,

5

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with  
10 one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
-C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
15 -SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
20 further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

25

- hydrogen,

- oxo,

30

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>, -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,

-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 • aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

15 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

20 hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>, -C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

25 wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30 (iii) or R<sup>1</sup> and R<sup>2</sup> which may be the same or different independently are selected from hydrogen, -C(=O)OR<sup>19</sup> -C(=O)R<sup>19</sup> and C<sub>1-6</sub>-alkyl,

wherein R<sup>19</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro,  $-\text{NR}^{20}\text{R}^{21}$ ,  $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{20}$ ,  $-\text{C}(=\text{O})\text{R}^{20}$ ,  $-\text{NHC}(=\text{O})\text{R}^{20}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{20}$ ,  $-\text{S}(=\text{O})\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5

- wherein  $\text{R}^{20}$  and  $\text{R}^{21}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{20}$  and  $\text{R}^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

and  $\text{R}^3$  is hydrogen,

B is a valence bond,  $-\text{C}(=\text{O})-$ ,  $-\text{S}(=\text{O})-$  or  $-\text{S}(=\text{O})_2-$ ,

15 D is

- hydroxy, halogen, cyano, nitro,  $-\text{NR}^{22}\text{R}^{23}$ ,  $-\text{N}(\text{R}^{22})\text{OR}^{23}$ ,  $-\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $-\text{OC}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{22}$ ,  $-\text{C}(=\text{O})\text{R}^{22}$ ,  $-\text{NHC}(=\text{O})\text{R}^{22}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{22}$ ,  $-\text{S}(=\text{O})\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

20

wherein  $\text{R}^{22}$  and  $\text{R}^{23}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{22}$  and  $\text{R}^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from

30

hydroxy, halogen, cyano, nitro,  $-\text{NR}^{24}\text{R}^{25}$ ,  $-\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $-\text{OC}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{24}$ ,  $-\text{C}(=\text{O})\text{R}^{24}$ ,  $-\text{NHC}(=\text{O})\text{R}^{24}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{24}$ ,  $-\text{S}(=\text{O})\text{R}^{24}$ ,  $-\text{S}(=\text{O})_2\text{R}^{24}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy, -C(=O)-aryl, -C(=O)- $C_{3-8}$ -cycloalkyl, -C(=O)-heteroaryl, -C(=O)- $C_{3-8}$ -heterocyclyl, -O-aryl, -O- $C_{3-8}$ -cycloalkyl, -O-heteroaryl, -O- $C_{3-8}$ -heterocyclyl, -S-aryl, -S- $C_{3-8}$ -cycloalkyl, -S-heteroaryl, -S- $C_{3-8}$ -heterocyclyl, -NH-aryl, -NH-heteroaryl,

10

wherein the ring moieties may optionally be substituted with one to three substituents selected from

15

- hydroxy, halogen, cyano, nitro,  $-NR^{26}R^{27}$ ,  $-C(=O)NR^{26}R^{27}$ ,  $-OC(=O)NR^{26}R^{27}$ ,  $-OCH_2C(=O)NR^{26}R^{27}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{26}$ ,  $-C(=O)R^{26}$ ,  $-NHC(=O)R^{26}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{26}$ ,  $-S(=O)R^{26}$ ,  $-S(=O)_2R^{26}$ ,  $-S(=O)_2NH_2$ ,

20

wherein  $R^{26}$  and  $R^{27}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{26}$  and  $R^{27}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{28}R^{29}$ ,  $-C(=O)NR^{28}R^{29}$ ,  $-OC(=O)NR^{28}R^{29}$ ,  $-OCH_2C(=O)NR^{28}R^{29}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{28}$ ,  $-C(=O)R^{28}$ ,  $-NHC(=O)R^{28}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{28}$ ,  $-S(=O)R^{28}$ ,  $-S(=O)_2R^{28}$ ,  $-S(=O)_2NH_2$ ,

30

wherein  $R^{28}$  and  $R^{29}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{28}$  and  $R^{29}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

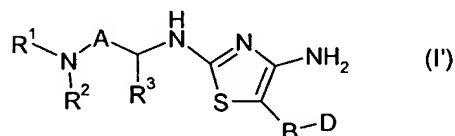
- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy, -C(=O)-aryl, -C(=O)- $C_{3-8}$ -cycloalkyl, -C(=O)-heteroaryl, -C(=O)- $C_{3-8}$ -heterocyclyl, -O-aryl, -O- $C_{3-8}$ -cycloalkyl, -O-heteroaryl, -O- $C_{3-8}$ -heterocyclyl, -S-aryl, -S- $C_{3-8}$ -cycloalkyl, -S-heteroaryl, -S- $C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{30}R^{31}$ , -C(=O) $NR^{30}R^{31}$ , -OC(=O) $NR^{30}R^{31}$ , -OCH<sub>2</sub>C(=O) $NR^{30}R^{31}$ ,  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,  $C_{1-6}$ -alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein  $R^{30}$  and  $R^{31}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{30}$  and  $R^{31}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

39. A method for treating impaired glucose tolerance, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

- 5 (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- 10
- hydrogen,
  - oxo,
  - C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

15

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
20 -S(=O)<sub>2</sub>NH<sub>2</sub>,

20

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
25 further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
30 -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

30

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>,

35

$-\text{OC}(=\text{O})\text{NR}^8\text{R}^9$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^8\text{R}^9$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^8$ ,  $-\text{C}(=\text{O})\text{R}^8$ ,  $-\text{NHC}(=\text{O})\text{R}^8$ ,  
 $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^8$ ,  $-\text{S}(=\text{O})\text{R}^8$ ,  
 $-\text{S}(=\text{O})_2\text{R}^8$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5        wherein  $\text{R}^8$  and  $\text{R}^9$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^8$  and  $\text{R}^9$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10    and  $\text{R}^3$  is hydrogen,

(ii) or  $\text{R}^1$  is hydrogen,  $-\text{C}(=\text{O})\text{OR}^{10}$ ,  $-\text{C}(=\text{O})\text{R}^{10}$ ,  $\text{C}_{1-6}$ -alkyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl or  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl,

15    wherein  $\text{R}^{10}$  is  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl or  $\text{C}_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

20        hydroxy, halogen, cyano, nitro,  $-\text{NR}^{11}\text{R}^{12}$ ,  $-\text{C}(=\text{O})\text{NR}^{11}\text{R}^{12}$ ,  $-\text{OC}(=\text{O})\text{NR}^{11}\text{R}^{12}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{11}\text{R}^{12}$ ,  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{11}$ ,  
 $-\text{C}(=\text{O})\text{R}^{11}$ ,  $-\text{NHC}(=\text{O})\text{R}^{11}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{11}$ ,  $-\text{S}(=\text{O})\text{R}^{11}$ ,  $-\text{S}(=\text{O})_2\text{R}^{11}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

25        wherein  $\text{R}^{11}$  and  $\text{R}^{12}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{11}$  and  $\text{R}^{12}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30    and  $\text{R}^2$  and  $\text{R}^3$  are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups  $\text{R}^{13}$  and  $\text{R}^{14}$  which are independently selected from

- hydrogen,
- oxo,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently

selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,

- 5 -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected

- 10 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
15 C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cyclo-  
alkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
-C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl,  
-O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl,  
-S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

20 wherein the ring moieties may optionally be substituted with one to three substituents  
independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>,

- 25 -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>,  
-C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected

- 30 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R<sup>1</sup> and R<sup>2</sup> which may be the same or different independently are selected from

- 35 hydrogen, -C(=O)OR<sup>19</sup>, -C(=O)R<sup>19</sup> and C<sub>1-6</sub>-alkyl,



wherein  $R^{19}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

- 5
- hydroxy, halogen, cyano, nitro,  $-NR^{20}R^{21}$ ,  $-C(=O)NR^{20}R^{21}$ ,  $-OC(=O)NR^{20}R^{21}$ ,  $-OCH_2C(=O)NR^{20}R^{21}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{20}$ ,  $-C(=O)R^{20}$ ,  $-NHC(=O)R^{20}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{20}$ ,  $-S(=O)R^{20}$ ,  $-S(=O)_2R^{20}$ ,  $-S(=O)_2NH_2$ ,
- 10
- wherein  $R^{20}$  and  $R^{21}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{20}$  and  $R^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and  $R^3$  is hydrogen,

B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

D is

20

- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

25

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from

- 35
- hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,

-CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>24</sup>, -S(=O)R<sup>24</sup>, -S(=O)<sub>2</sub>R<sup>24</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>24</sup> and R<sup>25</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>24</sup> and R<sup>25</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 10
- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

15

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- 20
- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>, -OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>, -S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

25 wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 30
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,

$-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{28}$ ,  
 $-\text{S}(=\text{O})\text{R}^{28}$ ,  $-\text{S}(=\text{O})_2\text{R}^{28}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5 wherein  $\text{R}^{28}$  and  $\text{R}^{29}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{28}$  and  $\text{R}^{29}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

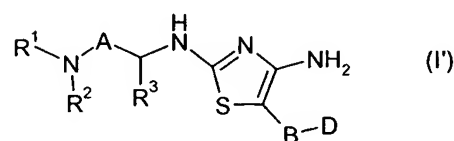
10       ○ aryl,  $\text{C}_{3-8}$ -cycloalkyl, heteroaryl,  $\text{C}_{3-8}$ -heterocyclyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl, aryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkoxy, heteroaryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})$ -aryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{C}(=\text{O})$ -heteroaryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{O}$ -aryl,  $-\text{O}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{O}$ -heteroaryl,  $-\text{O}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{S}$ -aryl,  $-\text{S}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{S}$ -heteroaryl,  $-\text{S}$ - $\text{C}_{3-8}$ -heterocyclyl,

15 wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{30}\text{R}^{31}$ ,  $-\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $-\text{OC}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{30}$ ,  $-\text{C}(=\text{O})\text{R}^{30}$ ,  $-\text{NHC}(=\text{O})\text{R}^{30}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{30}$ ,  $-\text{S}(=\text{O})\text{R}^{30}$ ,  $-\text{S}(=\text{O})_2\text{R}^{30}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

20 wherein  $\text{R}^{30}$  and  $\text{R}^{31}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{30}$  and  $\text{R}^{31}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

30 40. A method for treating type 2 diabetes, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

5 A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7  
membered non-aromatic ring, which ring may optionally contain a double bond, and which  
ring may optionally contain a further nitrogen atom, and to which ring is attached two groups

10 R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

15

which may optionally be substituted with one or two substituents independently  
selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>,  
20 -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>,  
-OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

20

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected  
25 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
30 C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cyclo-  
alkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
-C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl,

30

-O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl,  
-S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

5 wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>, -OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>, -S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

10 wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

20 wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>, -OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
25 -C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

30 wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to  
35 which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

5

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,  
10 -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

15

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

25

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

30

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>,  
-C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

35

wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or  $R^1$  and  $R^2$  which may be the same or different independently are selected from

5 hydrogen,  $-C(=O)OR^{19}$   $-C(=O)R^{19}$  and  $C_{1-6}$ -alkyl,

wherein  $R^{19}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

- 10
- hydroxy, halogen, cyano, nitro,  $-NR^{20}R^{21}$ ,  $-C(=O)NR^{20}R^{21}$ ,  $-OC(=O)NR^{20}R^{21}$ ,  $-OCH_2C(=O)NR^{20}R^{21}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{20}$ ,  $-C(=O)R^{20}$ ,  $-NHC(=O)R^{20}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{20}$ ,  $-S(=O)R^{20}$ ,  $-S(=O)_2R^{20}$ ,  $-S(=O)_2NH_2$ ,
- 15
- wherein  $R^{20}$  and  $R^{21}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{20}$  and  $R^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20 and  $R^3$  is hydrogen,

B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

D is

25

- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

30

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

35

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>24</sup>R<sup>25</sup>, -C(=O)NR<sup>24</sup>R<sup>25</sup>, -OC(=O)NR<sup>24</sup>R<sup>25</sup>,  
5 -OCH<sub>2</sub>C(=O)NR<sup>24</sup>R<sup>25</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>24</sup>, -C(=O)R<sup>24</sup>, -NHC(=O)R<sup>24</sup>, -CHF<sub>2</sub>,  
-CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>24</sup>, -S(=O)R<sup>24</sup>, -S(=O)<sub>2</sub>R<sup>24</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>24</sup> and R<sup>25</sup> which may be the same or different independently are selected  
10 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>24</sup> and R<sup>25</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
15 C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy,  
C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy,  
-C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl,  
-O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl,  
-S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

20 wherein the ring moieties may optionally be substituted with one to three substituents  
selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>,  
25 -OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>,  
-S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are  
30 selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the  
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring  
optionally containing one or two further heteroatoms selected from oxygen,  
sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

35



which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{28}R^{29}$ ,  $-C(=O)NR^{28}R^{29}$ ,  $-OC(=O)NR^{28}R^{29}$ ,  $-OCH_2C(=O)NR^{28}R^{29}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{28}$ ,  $-C(=O)R^{28}$ ,  $-NHC(=O)R^{28}$ ,  
5  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{28}$ ,  
 $-S(=O)R^{28}$ ,  $-S(=O)_2R^{28}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{28}$  and  $R^{29}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{28}$  and  $R^{29}$ , together with the  
10 nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

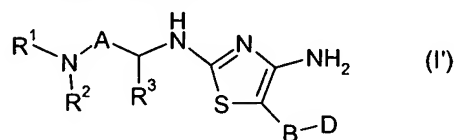
- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cyclo-  
15 alkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl-  
 $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -hetero-  
cyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  
 $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -  
heterocyclyl,  $-S$ -aryl,  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{30}R^{31}$ ,  
 $-C(=O)NR^{30}R^{31}$ ,  $-OC(=O)NR^{30}R^{31}$ ,  $-OCH_2C(=O)NR^{30}R^{31}$ ,  $C_{1-6}$ -alkyl,  
 $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{30}$ ,  $-C(=O)R^{30}$ ,  $-NHC(=O)R^{30}$ ,  
25  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{30}$ ,  
 $-S(=O)R^{30}$ ,  $-S(=O)_2R^{30}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{30}$  and  $R^{31}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{30}$  and  $R^{31}$ , together with the  
30 nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of  
35 these or a pharmaceutically acceptable salt thereof.

41. A method for treating type 1 diabetes, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

10 (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- 15
- hydrogen,
  - oxo,
  - 20 • C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>,  
25 -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
30 further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>, -OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>, -S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>, -OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>, -C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

5

- hydrogen,

- oxo,

10

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,

-OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,

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-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>, -S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

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wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>,

$-\text{C}(=\text{O})\text{R}^{17}$ ,  $-\text{NHC}(=\text{O})\text{R}^{17}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{17}$ ,  $-\text{S}(=\text{O})\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5 wherein  $\text{R}^{17}$  and  $\text{R}^{18}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{17}$  and  $\text{R}^{18}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or  $\text{R}^1$  and  $\text{R}^2$  which may be the same or different independently are selected from  
10 hydrogen,  $-\text{C}(=\text{O})\text{OR}^{19}$   $-\text{C}(=\text{O})\text{R}^{19}$  and  $\text{C}_{1-6}$ -alkyl,

wherein  $\text{R}^{19}$  is  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl or  $\text{C}_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

15 • hydroxy, halogen, cyano, nitro,  $-\text{NR}^{20}\text{R}^{21}$ ,  $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{20}$ ,  $-\text{C}(=\text{O})\text{R}^{20}$ ,  $-\text{NHC}(=\text{O})\text{R}^{20}$ ,  $-\text{CHF}_2$ ,  
 $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{20}$ ,  $-\text{S}(=\text{O})\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{R}^{20}$ ,  
 $-\text{S}(=\text{O})_2\text{NH}_2$ ,

20 • wherein  $\text{R}^{20}$  and  $\text{R}^{21}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{20}$  and  $\text{R}^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25 and  $\text{R}^3$  is hydrogen,

B is a valence bond,  $-\text{C}(=\text{O})-$ ,  $-\text{S}(=\text{O})-$  or  $-\text{S}(=\text{O})_2-$ ,

D is

30

• hydroxy, halogen, cyano, nitro,  $-\text{NR}^{22}\text{R}^{23}$ ,  $-\text{N}(\text{R}^{22})\text{OR}^{23}$ ,  $-\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  
 $-\text{OC}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{22}$ ,  $-\text{C}(=\text{O})\text{R}^{22}$ ,  
 $-\text{NHC}(=\text{O})\text{R}^{22}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{22}$ ,  
35  $-\text{S}(=\text{O})\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  
10  $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,  
 $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{24}$ ,  $-S(=O)R^{24}$ ,  $-S(=O)_2R^{24}$ ,  
 $-S(=O)_2NH_2$ ,

wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected  
15 from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl-  
20  $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  
 $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  
 $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  
 $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  
25  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,  $-NH$ -aryl,  $-NH$ -heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro,  $-NR^{26}R^{27}$ ,  $-C(=O)NR^{26}R^{27}$ ,  $-OC(=O)NR^{26}R^{27}$ ,  
30  $-OCH_2C(=O)NR^{26}R^{27}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{26}$ ,  $-C(=O)R^{26}$ ,  $-NHC(=O)R^{26}$ ,  
 $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{26}$ ,  
 $-S(=O)R^{26}$ ,  $-S(=O)_2R^{26}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{26}$  and  $R^{27}$  which may be the same or different independently are  
35 selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{26}$  and  $R^{27}$ , together with the

nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 5                   ○ C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,  
10                   -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>,  
-S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the  
15                   nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 20                   ○ aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

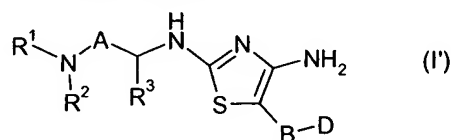
25                   wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>,  
30                   -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the  
35                   nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring

optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

42. A method for treating obesity, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,



wherein  $R^6$  and  $R^7$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^6$  and  $R^7$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

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- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,

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wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^8R^9$ ,  $-C(=O)NR^8R^9$ ,  $-OC(=O)NR^8R^9$ ,  $-OCH_2C(=O)NR^8R^9$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^8$ ,  $-C(=O)R^8$ ,  $-NHC(=O)R^8$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^8$ ,  $-S(=O)R^8$ ,  $-S(=O)_2R^8$ ,  $-S(=O)_2NH_2$ ,

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wherein  $R^8$  and  $R^9$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^8$  and  $R^9$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

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and  $R^3$  is hydrogen,

25

(ii) or  $R^1$  is hydrogen,  $-C(=O)OR^{10}$ ,  $-C(=O)R^{10}$ ,  $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl or  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl,

wherein  $R^{10}$  is  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl or  $C_{2-6}$ -alkynyl, which may optionally be substituted with one or two substituents independently selected from

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hydroxy, halogen, cyano, nitro,  $-NR^{11}R^{12}$ ,  $-C(=O)NR^{11}R^{12}$ ,  $-OC(=O)NR^{11}R^{12}$ ,  $-OCH_2C(=O)NR^{11}R^{12}$ ,  $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{11}$ ,  $-C(=O)R^{11}$ ,  $-NHC(=O)R^{11}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{11}$ ,  $-S(=O)R^{11}$ ,  $-S(=O)_2R^{11}$ ,  $-S(=O)_2NH_2$ ,

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wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>, -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>, -NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>, -S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

5 hydroxy, halogen, cyano, nitro,  $-\text{NR}^{17}\text{R}^{18}$ ,  $-\text{C}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  $-\text{OC}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{17}\text{R}^{18}$ ,  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{17}$ ,  
 $-\text{C}(=\text{O})\text{R}^{17}$ ,  $-\text{NHC}(=\text{O})\text{R}^{17}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  
 $-\text{SCF}_3$ ,  $-\text{SR}^{17}$ ,  $-\text{S}(=\text{O})\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{R}^{17}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

10 wherein  $\text{R}^{17}$  and  $\text{R}^{18}$  which may be the same or different independently are selected  
from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{17}$  and  $\text{R}^{18}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or  $\text{R}^1$  and  $\text{R}^2$  which may be the same or different independently are selected from  
15 hydrogen,  $-\text{C}(=\text{O})\text{OR}^{19}$ ,  $-\text{C}(=\text{O})\text{R}^{19}$  and  $\text{C}_{1-6}$ -alkyl,

wherein  $\text{R}^{19}$  is  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl or  $\text{C}_{2-6}$ -alkynyl, which may optionally be substituted with  
one or two substituents independently selected from

20 • hydroxy, halogen, cyano, nitro,  $-\text{NR}^{20}\text{R}^{21}$ ,  $-\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $-\text{OC}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{20}\text{R}^{21}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{20}$ ,  $-\text{C}(=\text{O})\text{R}^{20}$ ,  $-\text{NHC}(=\text{O})\text{R}^{20}$ ,  $-\text{CHF}_2$ ,  
 $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{20}$ ,  $-\text{S}(=\text{O})\text{R}^{20}$ ,  $-\text{S}(=\text{O})_2\text{R}^{20}$ ,  
 $-\text{S}(=\text{O})_2\text{NH}_2$ ,

25 • wherein  $\text{R}^{20}$  and  $\text{R}^{21}$  which may be the same or different independently are selected  
from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{20}$  and  $\text{R}^{21}$ , together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

30 and  $\text{R}^3$  is hydrogen,

B is a valence bond,  $-\text{C}(=\text{O})-$ ,  $-\text{S}(=\text{O})-$  or  $-\text{S}(=\text{O})_2-$ ,

D is

- hydroxy, halogen, cyano, nitro,  $-\text{NR}^{22}\text{R}^{23}$ ,  $-\text{N}(\text{R}^{22})\text{OR}^{23}$ ,  $-\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  
 $-\text{OC}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{22}\text{R}^{23}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{22}$ ,  $-\text{C}(=\text{O})\text{R}^{22}$ ,  
 $-\text{NHC}(=\text{O})\text{R}^{22}$ ,  $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{22}$ ,  
 $-\text{S}(=\text{O})\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{R}^{22}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

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wherein  $\text{R}^{22}$  and  $\text{R}^{23}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{22}$  and  $\text{R}^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

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- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from

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hydroxy, halogen, cyano, nitro,  $-\text{NR}^{24}\text{R}^{25}$ ,  $-\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $-\text{OC}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{24}\text{R}^{25}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{24}$ ,  $-\text{C}(=\text{O})\text{R}^{24}$ ,  $-\text{NHC}(=\text{O})\text{R}^{24}$ ,  $-\text{CHF}_2$ ,  
 $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{24}$ ,  $-\text{S}(=\text{O})\text{R}^{24}$ ,  $-\text{S}(=\text{O})_2\text{R}^{24}$ ,  
 $-\text{S}(=\text{O})_2\text{NH}_2$ ,

20

wherein  $\text{R}^{24}$  and  $\text{R}^{25}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{24}$  and  $\text{R}^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

- aryl,  $\text{C}_{3-8}$ -cycloalkyl, heteroaryl,  $\text{C}_{3-8}$ -heterocyclyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl, aryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkoxy, heteroaryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkoxy,  
 $-\text{C}(=\text{O})$ -aryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{C}(=\text{O})$ -heteroaryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -heterocyclyl,  
 $-\text{O}$ -aryl,  $-\text{O}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{O}$ -heteroaryl,  $-\text{O}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{S}$ -aryl,  
 $-\text{S}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{S}$ -heteroaryl,  $-\text{S}$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{NH}$ -aryl,  $-\text{NH}$ -heteroaryl,

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wherein the ring moieties may optionally be substituted with one to three substituents selected from

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- hydroxy, halogen, cyano, nitro,  $-\text{NR}^{26}\text{R}^{27}$ ,  $-\text{C}(=\text{O})\text{NR}^{26}\text{R}^{27}$ ,  $-\text{OC}(=\text{O})\text{NR}^{26}\text{R}^{27}$ ,  
 $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{26}\text{R}^{27}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{26}$ ,  $-\text{C}(=\text{O})\text{R}^{26}$ ,  $-\text{NHC}(=\text{O})\text{R}^{26}$ ,

$-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{26}$ ,  
 $-\text{S}(=\text{O})\text{R}^{26}$ ,  $-\text{S}(=\text{O})_2\text{R}^{26}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

5 wherein  $\text{R}^{26}$  and  $\text{R}^{27}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{26}$  and  $\text{R}^{27}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 ○  $\text{C}_{1-6}$ -alkyl,  $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{28}\text{R}^{29}$ ,  $-\text{C}(=\text{O})\text{NR}^{28}\text{R}^{29}$ ,  $-\text{OC}(=\text{O})\text{NR}^{28}\text{R}^{29}$ ,  
15  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{28}\text{R}^{29}$ ,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{28}$ ,  $-\text{C}(=\text{O})\text{R}^{28}$ ,  $-\text{NHC}(=\text{O})\text{R}^{28}$ ,  
 $-\text{CHF}_2$ ,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OCHF}_2$ ,  $-\text{OCH}_2\text{CF}_3$ ,  $-\text{OCF}_2\text{CHF}_2$ ,  $-\text{SCF}_3$ ,  $-\text{SR}^{28}$ ,  
20  $-\text{S}(=\text{O})\text{R}^{28}$ ,  $-\text{S}(=\text{O})_2\text{R}^{28}$ ,  $-\text{S}(=\text{O})_2\text{NH}_2$ ,

wherein  $\text{R}^{28}$  and  $\text{R}^{29}$  which may be the same or different independently are selected from hydrogen and  $\text{C}_{1-6}$ -alkyl, or  $\text{R}^{28}$  and  $\text{R}^{29}$ , together with the  
25 nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

○ aryl,  $\text{C}_{3-8}$ -cycloalkyl, heteroaryl,  $\text{C}_{3-8}$ -heterocyclyl, aryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -cyclo-  
25 alkyl- $\text{C}_{1-6}$ -alkyl, heteroaryl- $\text{C}_{1-6}$ -alkyl,  $\text{C}_{3-8}$ -heterocyclyl- $\text{C}_{1-6}$ -alkyl, aryl-  
 $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -cycloalkyl- $\text{C}_{1-6}$ -alkoxy, heteroaryl- $\text{C}_{1-6}$ -alkoxy,  $\text{C}_{3-8}$ -hetero-  
cyclyl- $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})$ -aryl,  $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{C}(=\text{O})$ -heteroaryl,  
 $-\text{C}(=\text{O})$ - $\text{C}_{3-8}$ -heterocyclyl,  $-\text{O}$ -aryl,  $-\text{O}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{O}$ -heteroaryl,  $-\text{O}$ - $\text{C}_{3-8}$ -  
heterocyclyl,  $-\text{S}$ -aryl,  $-\text{S}$ - $\text{C}_{3-8}$ -cycloalkyl,  $-\text{S}$ -heteroaryl,  $-\text{S}$ - $\text{C}_{3-8}$ -heterocyclyl,

30 wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro,  $-\text{NR}^{30}\text{R}^{31}$ ,  
 $-\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $-\text{OC}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $-\text{OCH}_2\text{C}(=\text{O})\text{NR}^{30}\text{R}^{31}$ ,  $\text{C}_{1-6}$ -alkyl,  
 $\text{C}_{2-6}$ -alkenyl,  $\text{C}_{2-6}$ -alkynyl,  $\text{C}_{1-6}$ -alkoxy,  $-\text{C}(=\text{O})\text{OR}^{30}$ ,  $-\text{C}(=\text{O})\text{R}^{30}$ ,  $-\text{NHC}(=\text{O})\text{R}^{30}$ ,

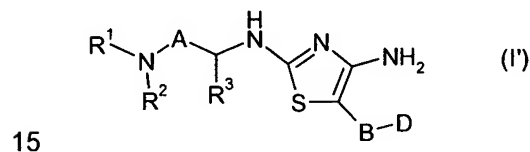
120

-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>,  
-S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

5 wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10 as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

43. A method for treating Alzheimer's disease, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

20 A is a valence bond or C<sub>1-6</sub>-alkylene,

(i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

25

- hydrogen,
  - oxo,
  - C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,
- 30

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^6R^7$ ,  $-C(=O)NR^6R^7$ ,  $-OC(=O)NR^6R^7$ ,  $-OCH_2C(=O)NR^6R^7$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^6$ ,  $-C(=O)R^6$ ,  $-NHC(=O)R^6$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^6$ ,  $-S(=O)R^6$ ,  $-S(=O)_2R^6$ ,  $-S(=O)_2NH_2$ ,

5

wherein  $R^6$  and  $R^7$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^6$  and  $R^7$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

10

- aryl,  $C_{3-8}$ -cycloalkyl, heteroaryl,  $C_{3-8}$ -heterocyclyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkoxy, heteroaryl- $C_{1-6}$ -alkoxy,  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkoxy,  $-C(=O)$ -aryl,  $-C(=O)$ - $C_{3-8}$ -cycloalkyl,  $-C(=O)$ -heteroaryl,  $-C(=O)$ - $C_{3-8}$ -heterocyclyl,  $-O$ -aryl,  $-O$ - $C_{3-8}$ -cycloalkyl,  $-O$ -heteroaryl,  $-O$ - $C_{3-8}$ -heterocyclyl,  $-S$ -aryl,  $-S$ - $C_{3-8}$ -cycloalkyl,  $-S$ -heteroaryl,  $-S$ - $C_{3-8}$ -heterocyclyl,

15

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro,  $-NR^8R^9$ ,  $-C(=O)NR^8R^9$ ,  $-OC(=O)NR^8R^9$ ,  $-OCH_2C(=O)NR^8R^9$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^8$ ,  $-C(=O)R^8$ ,  $-NHC(=O)R^8$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^8$ ,  $-S(=O)R^8$ ,  $-S(=O)_2R^8$ ,  $-S(=O)_2NH_2$ ,

20

wherein  $R^8$  and  $R^9$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^8$  and  $R^9$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

25

30 and  $R^3$  is hydrogen,

(ii) or  $R^1$  is hydrogen,  $-C(=O)OR^{10}$ ,  $-C(=O)R^{10}$ ,  $C_{1-6}$ -alkyl, aryl- $C_{1-6}$ -alkyl,  $C_{3-8}$ -cycloalkyl- $C_{1-6}$ -alkyl, heteroaryl- $C_{1-6}$ -alkyl or  $C_{3-8}$ -heterocyclyl- $C_{1-6}$ -alkyl,

wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

5 hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
-C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

10 wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

15 and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon  
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to  
which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- 20 • oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

25 which may optionally be substituted with one or two substituents independently  
selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,  
-OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

30 wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,



- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>, -C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R<sup>1</sup> and R<sup>2</sup> which may be the same or different independently are selected from hydrogen, -C(=O)OR<sup>19</sup>, -C(=O)R<sup>19</sup> and C<sub>1-6</sub>-alkyl,

wherein R<sup>19</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>20</sup>R<sup>21</sup>, -C(=O)NR<sup>20</sup>R<sup>21</sup>, -OC(=O)NR<sup>20</sup>R<sup>21</sup>, -OCH<sub>2</sub>C(=O)NR<sup>20</sup>R<sup>21</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>20</sup>, -C(=O)R<sup>20</sup>, -NHC(=O)R<sup>20</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>20</sup>, -S(=O)R<sup>20</sup>, -S(=O)<sub>2</sub>R<sup>20</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

- wherein R<sup>20</sup> and R<sup>21</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>20</sup> and R<sup>21</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>3</sup> is hydrogen,

B is a valence bond, -C(=O)-, -S(=O)- or -S(=O)<sub>2</sub>-,

5

D is

- hydroxy, halogen, cyano, nitro, -NR<sup>22</sup>R<sup>23</sup>, -N(R<sup>22</sup>)OR<sup>23</sup>, -C(=O)NR<sup>22</sup>R<sup>23</sup>,  
-OC(=O)NR<sup>22</sup>R<sup>23</sup>, -OCH<sub>2</sub>C(=O)NR<sup>22</sup>R<sup>23</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>22</sup>, -C(=O)R<sup>22</sup>,  
10 -NHC(=O)R<sup>22</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>22</sup>,  
-S(=O)R<sup>22</sup>, -S(=O)<sub>2</sub>R<sup>22</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>22</sup> and R<sup>23</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>22</sup> and R<sup>23</sup>, together with the nitrogen atom to which  
15 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

20 which may optionally be substituted with one or two substituents selected from  
hydroxy, halogen, cyano, nitro, -NR<sup>24</sup>R<sup>25</sup>, -C(=O)NR<sup>24</sup>R<sup>25</sup>, -OC(=O)NR<sup>24</sup>R<sup>25</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>24</sup>R<sup>25</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>24</sup>, -C(=O)R<sup>24</sup>, -NHC(=O)R<sup>24</sup>, -CHF<sub>2</sub>,  
-CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>24</sup>, -S(=O)R<sup>24</sup>, -S(=O)<sub>2</sub>R<sup>24</sup>,  
-S(=O)<sub>2</sub>NH<sub>2</sub>,

25

wherein R<sup>24</sup> and R<sup>25</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>24</sup> and R<sup>25</sup>, together with the nitrogen atom to which  
they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

30

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-  
C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy,  
C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy,  
-C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl,

-O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl,  
-S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents  
selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>,  
-S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are  
selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the  
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring  
optionally containing one or two further heteroatoms selected from oxygen,  
sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from  
hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>,  
-CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>,  
-S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are  
selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the  
nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring  
optionally containing one or two further heteroatoms selected from oxygen,  
sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cyclo-  
alkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-  
C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-hetero-  
cyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl,

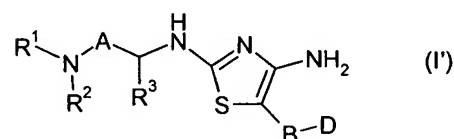
-C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

44. A method for treating bipolar disorder, said method comprising administering to a subject in need thereof an effective amount of a compound of formula (I'):



wherein

A is a valence bond or C<sub>1-6</sub>-alkylene,

- (i) R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they are attached, form a 5 to 7 membered non-aromatic ring, which ring may optionally contain a double bond, and which ring may optionally contain a further nitrogen atom, and to which ring is attached two groups R<sup>4</sup> and R<sup>5</sup> which are independently selected from

- hydrogen,

- oxo,
- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

5

which may optionally be substituted with one or two substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>6</sup>R<sup>7</sup>, -C(=O)NR<sup>6</sup>R<sup>7</sup>, -OC(=O)NR<sup>6</sup>R<sup>7</sup>, -OCH<sub>2</sub>C(=O)NR<sup>6</sup>R<sup>7</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>6</sup>, -C(=O)R<sup>6</sup>, -NHC(=O)R<sup>6</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>6</sup>, -S(=O)R<sup>6</sup>, -S(=O)<sub>2</sub>R<sup>6</sup>,  
10 -S(=O)<sub>2</sub>NH<sub>2</sub>,

10

wherein R<sup>6</sup> and R<sup>7</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>6</sup> and R<sup>7</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
15 further heteroatoms selected from oxygen, sulphur and nitrogen,

15

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl,  
20 -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

20

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from hydroxy, halogen, cyano, nitro, -NR<sup>8</sup>R<sup>9</sup>, -C(=O)NR<sup>8</sup>R<sup>9</sup>, -OC(=O)NR<sup>8</sup>R<sup>9</sup>, -OCH<sub>2</sub>C(=O)NR<sup>8</sup>R<sup>9</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>8</sup>, -C(=O)R<sup>8</sup>, -NHC(=O)R<sup>8</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>8</sup>, -S(=O)R<sup>8</sup>,  
25 -S(=O)<sub>2</sub>R<sup>8</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

25

wherein R<sup>8</sup> and R<sup>9</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>8</sup> and R<sup>9</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
30 further heteroatoms selected from oxygen, sulphur and nitrogen,

30

35 and R<sup>3</sup> is hydrogen,

(ii) or R<sup>1</sup> is hydrogen, -C(=O)OR<sup>10</sup>, -C(=O)R<sup>10</sup>, C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl or C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl,

5 wherein R<sup>10</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>11</sup>R<sup>12</sup>, -C(=O)NR<sup>11</sup>R<sup>12</sup>, -OC(=O)NR<sup>11</sup>R<sup>12</sup>,  
-OCH<sub>2</sub>C(=O)NR<sup>11</sup>R<sup>12</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>11</sup>,  
10 -C(=O)R<sup>11</sup>, -NHC(=O)R<sup>11</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>,  
-SCF<sub>3</sub>, -SR<sup>11</sup>, -S(=O)R<sup>11</sup>, -S(=O)<sub>2</sub>R<sup>11</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>11</sup> and R<sup>12</sup> which may be the same or different independently are selected  
from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>11</sup> and R<sup>12</sup>, together with the nitrogen atom to which  
15 they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two  
further heteroatoms selected from oxygen, sulphur and nitrogen,

and R<sup>2</sup> and R<sup>3</sup> are connected to form, together with A and the nitrogen atom and carbon  
atom, respectively, to which they are attached, a 5 to 7 membered non-aromatic ring to  
20 which ring is attached two groups R<sup>13</sup> and R<sup>14</sup> which are independently selected from

- hydrogen,
- oxo,
- 25 • C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents independently  
selected from hydroxy, halogen, cyano, nitro, -NR<sup>15</sup>R<sup>16</sup>, -C(=O)NR<sup>15</sup>R<sup>16</sup>,  
30 -OC(=O)NR<sup>15</sup>R<sup>16</sup>, -OCH<sub>2</sub>C(=O)NR<sup>15</sup>R<sup>16</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>15</sup>, -C(=O)R<sup>15</sup>,  
-NHC(=O)R<sup>15</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>15</sup>,  
-S(=O)R<sup>15</sup>, -S(=O)<sub>2</sub>R<sup>15</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>15</sup> and R<sup>16</sup> which may be the same or different independently are selected  
35 from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>15</sup> and R<sup>16</sup>, together with the nitrogen atom to which

they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

wherein the ring moieties may optionally be substituted with one to three substituents independently selected from

hydroxy, halogen, cyano, nitro, -NR<sup>17</sup>R<sup>18</sup>, -C(=O)NR<sup>17</sup>R<sup>18</sup>, -OC(=O)NR<sup>17</sup>R<sup>18</sup>, -OCH<sub>2</sub>C(=O)NR<sup>17</sup>R<sup>18</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>17</sup>, -C(=O)R<sup>17</sup>, -NHC(=O)R<sup>17</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>17</sup>, -S(=O)R<sup>17</sup>, -S(=O)<sub>2</sub>R<sup>17</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>17</sup> and R<sup>18</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>17</sup> and R<sup>18</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

(iii) or R<sup>1</sup> and R<sup>2</sup> which may be the same or different independently are selected from

hydrogen, -C(=O)OR<sup>19</sup>, -C(=O)R<sup>19</sup> and C<sub>1-6</sub>-alkyl,

wherein R<sup>19</sup> is C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl or C<sub>2-6</sub>-alkynyl, which may optionally be substituted with one or two substituents independently selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>20</sup>R<sup>21</sup>, -C(=O)NR<sup>20</sup>R<sup>21</sup>, -OC(=O)NR<sup>20</sup>R<sup>21</sup>, -OCH<sub>2</sub>C(=O)NR<sup>20</sup>R<sup>21</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>20</sup>, -C(=O)R<sup>20</sup>, -NHC(=O)R<sup>20</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>20</sup>, -S(=O)R<sup>20</sup>, -S(=O)<sub>2</sub>R<sup>20</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

- wherein  $R^{20}$  and  $R^{21}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{20}$  and  $R^{21}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

5

and  $R^3$  is hydrogen,

B is a valence bond,  $-C(=O)-$ ,  $-S(=O)-$  or  $-S(=O)_2-$ ,

10 D is

- hydroxy, halogen, cyano, nitro,  $-NR^{22}R^{23}$ ,  $-N(R^{22})OR^{23}$ ,  $-C(=O)NR^{22}R^{23}$ ,  
 $-OC(=O)NR^{22}R^{23}$ ,  $-OCH_2C(=O)NR^{22}R^{23}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{22}$ ,  $-C(=O)R^{22}$ ,  
15  $-NHC(=O)R^{22}$ ,  $-CHF_2$ ,  $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{22}$ ,  
20  $-S(=O)R^{22}$ ,  $-S(=O)_2R^{22}$ ,  $-S(=O)_2NH_2$ ,

wherein  $R^{22}$  and  $R^{23}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{22}$  and  $R^{23}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

- $C_{1-6}$ -alkyl,  $C_{2-6}$ -alkenyl,  $C_{2-6}$ -alkynyl,

which may optionally be substituted with one or two substituents selected from  
25 hydroxy, halogen, cyano, nitro,  $-NR^{24}R^{25}$ ,  $-C(=O)NR^{24}R^{25}$ ,  $-OC(=O)NR^{24}R^{25}$ ,  
 $-OCH_2C(=O)NR^{24}R^{25}$ ,  $C_{1-6}$ -alkoxy,  $-C(=O)OR^{24}$ ,  $-C(=O)R^{24}$ ,  $-NHC(=O)R^{24}$ ,  $-CHF_2$ ,  
 $-CF_3$ ,  $-OCF_3$ ,  $-OCHF_2$ ,  $-OCH_2CF_3$ ,  $-OCF_2CHF_2$ ,  $-SCF_3$ ,  $-SR^{24}$ ,  $-S(=O)R^{24}$ ,  $-S(=O)_2R^{24}$ ,  
30  $-S(=O)_2NH_2$ ,

30

wherein  $R^{24}$  and  $R^{25}$  which may be the same or different independently are selected from hydrogen and  $C_{1-6}$ -alkyl, or  $R^{24}$  and  $R^{25}$ , together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,



- aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl, -NH-aryl, -NH-heteroaryl,

wherein the ring moieties may optionally be substituted with one to three substituents selected from

- hydroxy, halogen, cyano, nitro, -NR<sup>26</sup>R<sup>27</sup>, -C(=O)NR<sup>26</sup>R<sup>27</sup>, -OC(=O)NR<sup>26</sup>R<sup>27</sup>, -OCH<sub>2</sub>C(=O)NR<sup>26</sup>R<sup>27</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>26</sup>, -C(=O)R<sup>26</sup>, -NHC(=O)R<sup>26</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>26</sup>, -S(=O)R<sup>26</sup>, -S(=O)<sub>2</sub>R<sup>26</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>26</sup> and R<sup>27</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>26</sup> and R<sup>27</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl,

which may optionally be substituted with one or two substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>28</sup>R<sup>29</sup>, -C(=O)NR<sup>28</sup>R<sup>29</sup>, -OC(=O)NR<sup>28</sup>R<sup>29</sup>, -OCH<sub>2</sub>C(=O)NR<sup>28</sup>R<sup>29</sup>, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>28</sup>, -C(=O)R<sup>28</sup>, -NHC(=O)R<sup>28</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>28</sup>, -S(=O)R<sup>28</sup>, -S(=O)<sub>2</sub>R<sup>28</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

wherein R<sup>28</sup> and R<sup>29</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>28</sup> and R<sup>29</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

- 5                   o   aryl, C<sub>3-8</sub>-cycloalkyl, heteroaryl, C<sub>3-8</sub>-heterocyclyl, aryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-cyclo-alkyl-C<sub>1-6</sub>-alkyl, heteroaryl-C<sub>1-6</sub>-alkyl, C<sub>3-8</sub>-heterocyclyl-C<sub>1-6</sub>-alkyl, aryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-cycloalkyl-C<sub>1-6</sub>-alkoxy, heteroaryl-C<sub>1-6</sub>-alkoxy, C<sub>3-8</sub>-hetero-cyclyl-C<sub>1-6</sub>-alkoxy, -C(=O)-aryl, -C(=O)-C<sub>3-8</sub>-cycloalkyl, -C(=O)-heteroaryl, -C(=O)-C<sub>3-8</sub>-heterocyclyl, -O-aryl, -O-C<sub>3-8</sub>-cycloalkyl, -O-heteroaryl, -O-C<sub>3-8</sub>-heterocyclyl, -S-aryl, -S-C<sub>3-8</sub>-cycloalkyl, -S-heteroaryl, -S-C<sub>3-8</sub>-heterocyclyl,

10                   wherein the ring moieties may optionally be substituted with one to three substituents selected from hydroxy, halogen, cyano, nitro, -NR<sup>30</sup>R<sup>31</sup>, -C(=O)NR<sup>30</sup>R<sup>31</sup>, -OC(=O)NR<sup>30</sup>R<sup>31</sup>, -OCH<sub>2</sub>C(=O)NR<sup>30</sup>R<sup>31</sup>, C<sub>1-6</sub>-alkyl, C<sub>2-6</sub>-alkenyl, C<sub>2-6</sub>-alkynyl, C<sub>1-6</sub>-alkoxy, -C(=O)OR<sup>30</sup>, -C(=O)R<sup>30</sup>, -NHC(=O)R<sup>30</sup>, -CHF<sub>2</sub>, -CF<sub>3</sub>, -OCF<sub>3</sub>, -OCHF<sub>2</sub>, -OCH<sub>2</sub>CF<sub>3</sub>, -OCF<sub>2</sub>CHF<sub>2</sub>, -SCF<sub>3</sub>, -SR<sup>30</sup>, -S(=O)R<sup>30</sup>, -S(=O)<sub>2</sub>R<sup>30</sup>, -S(=O)<sub>2</sub>NH<sub>2</sub>,

15                   wherein R<sup>30</sup> and R<sup>31</sup> which may be the same or different independently are selected from hydrogen and C<sub>1-6</sub>-alkyl, or R<sup>30</sup> and R<sup>31</sup>, together with the nitrogen atom to which they are attached, form a 3 to 8 membered cyclic ring optionally containing one or two further heteroatoms selected from oxygen, sulphur and nitrogen,

20

as well as any optical or geometric isomer or tautomeric form thereof including mixtures of these or a pharmaceutically acceptable salt thereof.

25                   45. The method according to claims 27 and 33-42, said method comprising further administering to said subject one or more agents selected from the group consisting of antidiabetic agents, antihyperlipidemic compounds, antiobesity compounds and antihypertensive compounds.

30                   46. The method according to claim 43, said method further comprising further administering to said subject one or more agents for treating Alzheimer's disease.

47. The method according to claim 44, said method further comprising further administering to said subject one or more agents for treating bipolar disorder.